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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,323	02/26/2002	Kazumasa Yashiro	791_187	4109

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EXAMINER

CREPEAU, JONATHAN

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/083,323

Applicant(s)

YASHIRO ET AL.

Examiner

Jonathan S. Crepeau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2002.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-41 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/6/02.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Suggestions

1. In claim 15, "said convex part" lacks proper antecedent basis. Appropriate correction is suggested, but not required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-37, and 39-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Oweis et al (U.S. Patent 5,972,532). The reference is directed to a lithium secondary cell (see col. 3, line 22). The cell comprises a spirally-wound electrode body comprising aluminum positive electrode connections (i.e., foils) and copper negative electrode connections extending axially from the edges of the spiral (see the Figures; col. 3, line 20). The electrode connections are bent substantially orthogonally and are laser-welded to respective current collection tabs (8) (see Fig. 3; col. 2, line 49). The collection tabs are configured in a cross shape and function as cover members (see Fig. 1). Regarding claim 10, columnar crystals would inherently be formed from the electrode connections toward the tabs upon laser welding. Regarding claims 9, 12, 13,

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15-31, and 33-37, these claims are not seen to further limit the structure of the claimed battery and thus are accorded little patentable weight. Patentable weight has been accorded to the limitations in claims 12 and 13 that the collectors are welded to the edges of the foils, as this conveys structure to the final product. However, the other process limitations in the above-noted claims are given little weight, pursuant to MPEP §2113. Regarding claims 39-41, these claims recite intended uses and are also given little weight (although the reference does teach that the batteries are useful in electric vehicles; see col. 3, line 34). See also MPEP §2114.

Thus, the instant claims are anticipated.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oweis et al.

The reference is applied to claims 1, 3-37, and 39-41 for the reasons stated above.

However, the reference does not expressly teach that the capacity of the battery is at least 2 Ah, as recited in claim 38.

However, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the artisan would be motivated to use a large-

capacity battery as the battery of Oweis. As noted above, the reference teaches that the battery is useful in electric vehicles. Since batteries for this particular application typically have a large capacity, this teaching would provide sufficient guidance for the artisan to use such a large capacity battery as the battery of Oweis.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oweis et al in view of Watanabe et al (U.S. Patent 6,114,059).

Oweis is applied to claims 1, 3-37, and 39-41 for the reasons stated above. However, the reference does not expressly teach that the battery comprises electrode covers comprising internal terminals, external terminals, and cell covers, as recited in claim 2.

In Figure 2, Watanabe teaches a spirally-wound battery comprising electrode covers, each comprising a cover (5), an internal terminal (7), and an external terminal (6).

Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the artisan would be motivated to use the electrode covers of Watanabe et al. in the battery of Oweis et al. In column 3, line 38, Watanabe teaches the following:

Thus, the present cylinder-shaped secondary battery can radiate the heat generated therein efficiently, and can keep the internal pressure increment minimum. Moreover, even

As such, the artisan would be motivated to use the electrode covers of Watanabe et al. in the battery of Oweis et al in hopes of radiating heat efficiently.

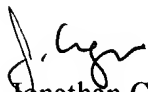
Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Crepeau whose telephone number is (571) 272-1299.

The examiner can normally be reached Monday-Friday from 9:30 AM - 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr, can be reached at (571) 272-1414. The phone number for the organization where this application or proceeding is assigned is (571) 272-1700. Documents may be faxed to the central fax server at (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jonathan Crepeau
Patent Examiner
Art Unit 1746
July 9, 2004